REMARKS

This is a preliminary amendment. Claims 1-104 are pending in this application. By this amendment, claims 1-58 are cancelled without prejudice or disclaimer, claims 59-61, 63-64, 66-68, 70-74, 77, 82-83, 88 and 97 are amended, and new claims 105-116 are added. Following entry of this amendment, claims 59-116 will be pending.

Support for the amendments and new claims is found throughout the specification and originally filed claims, including, e.g., at Figures 1, 2A, 20-21, and 23; page 27, lines 34-35; page 3, lines 23-28; page 25, lines 19-29; page 7, lines 29, and 36-37; page 10, lines 17-24; page 11, lines 29-31; page 41, lines 18-20, and 26-27; page 37, line 22; and page 8, line 37 to page 9, line 2. No new matter is added by this amendment. Claim 60 is amended recite "the gene encoding dihydrofolate reductase (DHFR) and the gene encoding glutamine synthetase" (rather than "the genes encoding dihydrofolate reductase (DHFR) and glutamine synthetase"). Claims 61, 66, 88, and 97 are amended to recite "gene encoding DHFR" (rather than "DHFR gene") to improve the consistency of claim language. Compare, eg, claim 60. Claims 61 and 63 are amended to recite "amplifiable second selectable gene" (rather than "amplifiable selectable gene") to improve the consistency of claim language. Compare with claim 59. Claim 63 is also amended to correct a minor typographical error. Claims 64, 74, 77, 82 and 83 are amended to correct claim dependencies. Claim 67 is amended to delete the phrase "comprising a splice donor sequence" and claim 68 is amended and now recite "the intron provides a splicing efficiency of between 80% and 99%", in order to improve the consistency of claim language. Compare, e.g., claim 69. Claim 70 is amended to delete the phrase "wherein the fusion gene is positioned within the intron" in order to delete repetitive language in the claim. Compare claim 67 (which recites this phrase). In addition, the phrase "5' of the intron" is deleted, as this language is implicit in claim 67, from which claim 70 depends. Claim 71 is amended to delete the phrase "wherein the selected sequence and fusion gene are operably linked to the promoter 5' of the selected sequence", in order to delete repetitive language in the claim. Compare claim 67 (which recites this phrase). Claim 72 is rewritten in independent form.

With respect to all amendments and cancelled claims, Applicants have not dedicated or abandoned any unclaimed subject matter and moreover have not acquiesced to any objection and/or rejection made by the Office. Applicants expressly reserve the right to pursue prosecution of any subject matter not presently claimed in one or more future or pending continuation and/or divisional applications.

Specification

The specification is amended to insert SEQ ID NOs, and to correct minor typographical errors in three citations. The specification is further amended to replace "Figure 9" with "Figure 1" at page 25, lines 21 and 23; page 27, line 35; and page 28, lines 3, 21, and 31. Applicants submit that these references to "Figure 9" are obvious typographical errors for at least the following reasons. First, the paragraphs in which the correction has been made refer to "structures" and "configurations" of exemplary polynucleotide constructs. Figure 1 shows 9 exemplary construct designs. By contrast, Figure 9 depicts graphs showing "DNase productivity vs. GFP productivity" and "DNase RNA vs. DNase productivity". Second, the corrected sentences in the specification refer to line numbers within the figure. Figure 1 contains 9 numbered lines within the figure. By contrast, Figure 9 shows two graphs and does not have any numbered lines. Thus it is evident that one of ordinary skill would understand that these references to Figure 9 are obvious typographic errors, and that Figure 1 should be referenced instead. Accordingly, no new matter is added by the amendments, and entry of the amendments is respectfully requested.

Drawings

The attached sheets of drawing include changes to Figures 20B, 24B, and 24C. Specifically, in Figure 20B, "1920" is changed to "1872"; "1921 to 3381" is changed to 1873 to 3322"; "4200" is changed to "4157"; and "4217 to 4919" is changed to "4158 to 4860". In Figure 24B, "2280" is changed to "2227", and "2287 to 3736" is changed to "2228 to 3677". In Figure 24C, "4800" is changed to "4771" and "4831 to 5533" is changed to "4772 to 5474". These changes correct obvious typographical errors for at least the following reasons. Review of Figures 20 and 24 indicates that the numerals in the column to the left of the polynucleotide sequence refer to the number or position of the last nucleotide in the row associated with the numeral. For example, the numeral "60" at the left of the first line of the polynucleotide sequence in Figure 20A refers to the number or position of the "T" residue at the end of that line. Similarly, the "120" at the left of the second line of the polynucleotide sequence refers to the number or position of the "T" residue at the end of that line, and so on. Turning to Figure 20B, it is evident that the numeral at the left of line 8 of the polynucleotide sequence should be "1872", since the number or position of the last nucleotide in the row, a "C" residue, is 1872. Similarly, the range of numbers defining the insertion site depicted in that row should be "1873 to 3322". Likewise, the numeral at the left of the last line of polynucleotide sequence should be "4157", since the number or position of the last nucleotide in the row (a "C" residue) is 4157, and the range of numbers defining the insertion site depicted in that row should be "4158 to 4860". Similar principles apply to Figure 24B and 24C. Thus it

is evident that the numerals at the left of line 14 of the polynucleotide sequence of Figure 24B and at the left of line 9 of the polynucleotide sequence of Figure 24C is "2227" and "4771", respectively, and the range of numbers defining the insertion site depicted in those rows should be "2228 to 3677" and "4772 to 5474", respectively. No new matter is added by the changes, and entry of the corrected Figures is respectfully requested.

The Examiner is invited to contact the undersigned in order to expedite the resolution of any remaining issues.

Respectfully submitted,
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Date: 10/13/04

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Amendments to the Drawings:

The attached sheets of drawing include changes to Figures 20B, 24B, and 24C. These sheets replace the original sheets containing Figures 20B, 24B, and 24C. In Figure 20B, "1920" is changed to "1872"; "1921 to 3381" is changed to 1873 to 3322"; "4200" is changed to "4157"; and "4217 to 4919" is changed to "4158 to 4860". In Figure 24B, "2280" is changed to "2227", and "2287 to 3736" is changed to "2228 to 3677". In Figure 24C, "4800" is changed to "4771" and "4831 to 5533" is changed to "4772 to 5474".

Attachments: Replacement Sheets
Annotated Sheets Showing Changes

In re Application of:
Vanessa Chisholm et al.
Serial No. 10/714,000
Filed: November 14, 2003
Title: EXPRESSION VECTORS AND METHODS

APPENDIX

REPLACEMENT FIGURES AND ANNOTATED SHEETS SHOWING CHANGES

Annotated Sheet showing changes

Figure 20B

1500 TTACCAGGAA GCCATGAATC AACCAGGCCA CCTTAGACTC TTTGTGACAA GGATCATGCA

1560 GGAATTTGAA AGTGACACGT TTTTCCCAGA AATTGATTTG GGGAAATATA AACCTCTCCC

1620 AGAATACCCA GGCGTCCTCT CTGAGGTCCA GGAGGAAAAA GGCATCAAGT ATAAGTTTGA

1680 AGTCTACGAG AAGAAAGACT AACGTTAACT GCTCCCCTCC TAAAGCTATG CATTTTTATA

1740 AGACCATGGG ACTTTTGCTG GCTTTAGATC CCCTTGGCTT CGTTAGAACG CAGCTACAAT

1800 TAATACATAA CCTTATGTAT CATACACATA CGATTTAGGT GACACTATAG ATAACATCCA

1860 CTTTGCCTTT CTCTCCACAG GTGTCCACTC CCAGGTCCAA CTGCACCTCG GTTCTATCGA

~~1920~~ 1872 TTGAATTCCA CC <from ~~1921~~ 1873 to ~~3381~~ 3322, insertion site for a selected heterologous polypeptide>

3382 CGATGGCC GCCATGGCCC AACTTGTTTA TTGCAGCTTA

3420 TAATGGTTAC AAATAAAGCA ATAGCATCAC AAATTTCACA AATAAAGCAT TTTTTTCACT

3480 GCATTCTAGT TGTGGTTTGT CCAAACTCAT CAATGTATCT TATCATGTCT GGATCGGGAA

3540 TTAATTCGGC GCAGCACCAT GGCCTGAAAT AACCTCTGAA AGAGGAACTT GGTTAGGTAC

3600 CTTCTGAGGC GGAAAGAACC AGCTGTGGAA TGTGTGTCAG TTAGGGTGTG GAAAGTCCCC

3660 AGGCTCCCCA GCAGGCAGAA GTATGCAAAG CATGCATCTC AATTAGTCAG CAACCAGGTG

3720 TGGAAAGTCC CCAGGCTCCC CAGCAGGCAG AAGTATGCAA AGCATGCATC TCAATTAGTC

3780 AGCAACCATA GTCCCGCCCC TAACTCCGCC CATCCCGCCC CTAACTCCGC CCAGTTCCGC

3840 CCATTCTCCG CCCCATGGCT GACTAATTTT TTTTATTTAT GCAGAGGCCG AGGCCGCCTC

3900 GGCCTCTGAG CTATTCCAGA AGTAGTGAGG AGGCTTTTTT GGAGGAGCTT TTGCAAAAAG

3960 CTAGCTTATC CGGCCGGGAA CGGTGCATTG GAACGCGGAT TCCCCGTGCC AAGAGTCAGG

4020 TAAGTACCGC CTATAGAGTC TATAGGCCCA CCCCCTTGGC TTCGTTAGAA CGCGGCTACA

4080 ATTAATACAT AACCTTTTGG ATCGATCCTA CTGACACTGA CATCCACTTT TTCTTTTTCT

4140 CCACAGGTGT CCACTCCCAG GTCCAACTGC ACCTCGGTTC GCGAAGCTAG CTTGGGCTGC

~~4200~~ 4157 ATCGATTGAA TTCCACC <from ~~4217~~ 4158 to ~~4919~~ 4860, insertion site for a selected heterologous polypeptide>

Annotated Sheet showing changes

Figure 24B

1500 ACCATTGAAC TGCATCGTCG CCGTGTCCCA AAATATGGGG ATTGGCAAGA ACGGAGACCT

1560 ACCCTGGCCT CCGCTCAGGA ACGCGTTCAA GTACTTCCAA AGAATGACCA CAACCTCTTC

1620 AGTGGAAGGT AAACAGAATC TGGTGATTAT GGGTAGGAAA ACCTGGTTCT CCATTCCTGA

1680 GAAGAATCGA CCTTTAAAGG ACAGAATTAA TATAGTTCTC AGTAGAGAAC TCAAAGAACC

1740 ACCACGAGGA GCTCATTTTC TTGCCAAAAG TTTGGATGAT GCCTTAAGAC TTATTGAACA

1800 ACCGGAATTG GCAAGTAAAG TAGACATGGT TTGGATAGTC GGAGGCAGTT CTGTTTACCA

1860 GGAAGCCATG AATCAACCAG GCCACCTCAG ACTCTTTGTG ACAAGGATCA TGCAGGAATT

1920 TGAAAGTGAC ACGTTTTTCC CAGAAATTGA TTTGGGGAAA TATAAACCTC TCCCAGAATA

1980 CCCAGGCGTC CTCTCTGAGG TCCAGGAGGA AAAAGGCATC AAGTATAAGT TTGAAGTCTA

2040 CGAGAAGAAA GACTAACGTT AACTGCTCCC CTCCTAAAGC TATGCATTTT TATAAGACCA

2100 TGAGACTTTT GCTGGCTTTA GATCCCCTTG GCTTCGTTAG AACGCAGCTA CAATTAATAC

2160 ATAACCTTAT GTATCATACA CATACGATTT AGGTGACACT ATAGAATAAC ATCCACTTTG

2220 CCTTTCTCTC CACAGGTGTC CACTCCCAGG TCCAACTGCA CCTCGGTTCT ATCGATTGAA

~~2280~~ 2227 TTCCACC <from ~~2287~~ 2228 to ~~3736~~ 3677, insertion site for a selected heterologous polypeptide>

3737 CGA TGGCCGCCAT GGCCCAACTT GTTTATTGCA GCTTATAATG

3780 GTTACAAATA AAGCAATAGC ATCACAAATT TCACAAATAA AGCATTTTTT TCACTGCATT

3840 CTAGTTGTGG TTTGTCCAAA CTCATCAATG TATCTTATCA TGTCTGGATC GGGAATTAAT

3900 TCGGCGCAGC ACCATGGCCT GAAATAACCT CTGAAAGAGG AACTTGGTTA GGTACCTATT

3960 AATAGTAATC AATTACGGGG TCATTAGTTC ATAGCCCATA TATGGAGTTC CGCGTTACAT

4020 AACTTACGGT AAATGGCCCG CCTGGCTGAC CGCCCAACGA CCCCCGCCCA TTGACGTCAA

4080 TAATGACGTA TGTTCCCATA GTAACGCCAA TAGGGACTTT CCATTGACGT CAATGGGTGG

4140 AGTATTTACG GTAAACTGCC CACTTGGCAG TACATCAAGT GTATCATATG CCAAGTACGC

4200 CCCCTATTGA CGTCAATGAC GGTAAATGGC CCGCCTGGCA TTATGCCCAG TACATGACCT

4260 TATGGGACTT TCCTACTTGG CAGTACATCT ACGTATTAGT CATCGCTATT ACCATGGTGA

Annotated Sheet showing changes

Figure 24C

4320 TGCGGTTTTG GCAGTACATC AATGGGCGTG GATAGCGGTT TGACTCACGG GGATTTCCAA

4380 GTCTCCACCC CATTGACGTC AATGGGAGTT TGTTTTGGCA CCAAAATCAA CGGGACTTTC

4440 CAAAATGTCG TAACAACTCC GCCCCATTGA CGCAAATGGG CGGTAGGCGT GTACGGTGGG

4500 AGGTCTATAT AAGCAGAGCT CGTTTAGTGA ACCGTCAGAT CGCCTGGAGA CGCCATCCAC

4560 GCTGTTTTGA CCTGCTAGCT TATCCGGCCG GGAACGGTGC ATTGGAACGC GGATTCCCCG

4620 TGCCAAGAGT CAGGTAAGTA CCGCCTATAG AGTCTATAGG CCCACCCCCT TGGCTTCGTT

4680 AGAACGCGGC TACAATTAAT ACATAACCTT TTGGATCGAT CCTACTGACA CTGACATCCA

4740 CTTTTTCTTT TTCTCCACAG GTGTCCACTC CCAGGTCCAA CTGCACCTCG GTTCGCGAAG

~~4800~~ 4771 CTCGCTTGGG CTGCATCGAT TGAATTCCAC C <from ~~4831~~ to ~~5533~~, insertion
4772 5474
site for a selected heterologous polypeptide>

5534 CGATGG CCGCCATGGC CCAACTTGTT TATTGCAGCT TATAATGGTT

5580 ACAAATAAAG CAATAGCATC ACAAATTTCA CAAATAAAGC ATTTTTTTCA CTGCATTCTA

5640 GTTGTGGTTT GTCCAAACTC ATCAATGTAT CTTATCATGT CTGGATCGGG AATTAATTCG

5700 GCGCAGCACC ATGGCCTGAA ATAAGTTTAA ACCCTCTGAA AGAGGAACTT GGTTAGGTAC

5760 CGACTAGTCT TTTGCAAAAA GCTGTTACCT CGAGCGGCCG CTTAATTAAG GCGCGCCATT

5820 TAAATCCTGC AGGTAACAGC TTGGCACTGG CCGTCGTTTT ACAACGTCGT GACTGGGAAA

5880 ACCCTGGCGT TACCCAACTT AATCGCCTTG CAGCACATCC CCCTTTCGCC AGCTGGCGTA

5940 ATAGCGAAGA GGCCCGCACC GATCGCCCTT CCCAACAGTT GCGCAGCCTG AATGGCGAAT

6000 GGCGCCTGAT GCGGTATTTT CTCCTTACGC ATCTGTGCGG TATTTCACAC CGCATACGTC

6060 AAAGCAACCA TAGTACGCGC CCTGTAGCGG CGCATTAAGC GCGGCGGGTG TGGTGGTTAC

6120 GCGCAGCGTG ACCGCTACAC TTGCCAGCGC CCTAGCGCCC GCTCCTTTCG CTTTCTTCCC

6180 TTCCTTTCTC GCCACGTTCG CCGGCTTTCC CCGTCAAGCT CTAAATCGGG GGCTCCCTTT

6240 AGGGTTCCGA TTTAGTGCTT TACGGCACCT CGACCCCAAA AAACTTGATT TGGGTGATGG

6300 TTCACGTAGT GGGCCATCGC CCTGATAGAC GGTTTTTCGC CCTTTGACGT TGGAGTCCAC

6360 GTTCTTTAAT AGTGGACTCT TGTTCCAAAC TGGAACAACA CTCAACCCTA TCTCGGGCTA

6420 TTCTTTTGAT TTATAAGGGA TTTTGCCGAT TTCGGCCTAT TGGTTAAAAA ATGAGCTGAT